

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020031**Date Inspected:** 06-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. LI YAN HUA**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

**1. INPROCESS:**

Orthotropic Box Girder (OBG) at Bay-14 Area:

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the deck plate to deck panel diaphragm weld joint located on 14E. The weld is designated as DP3160-002-216. The welder is identified as 206623. ZPMC QC Mr. ZHONG PENG was onsite monitoring the welding variables. The welding variables were recorded at, current 293.1 Amps, Voltage 26.1 Volts. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2232-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the deck panel diaphragm to deck panel diaphragm weld joint located on 14E. The weld is designated as DP3163-001-063. The welder is identified as 068920. ZPMC QC Mr. ZHONG PENG was onsite monitoring the welding variables. The welding variables were recorded at, current 269.0 Amps, Voltage 26.8 Volts. The inprocess

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Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the vertical shear plate to anchorage plate weld joint located on 14E at bike path side. The weld is designated as SEG3019BB-135. The welder is identified as 067877. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The welding variables were recorded at, current 267.2 Amps, Voltage 25.4 Volts. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the vertical shear plate to anchorage plate weld joint located on 14E at bike path side. The weld is designated as SEG3019BB-157. The welder is identified as 066763. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The welding variables were recorded at, current 265.6 Amps, Voltage 26.9 Volts. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the bottom plate to anchorage plate weld joint located on 14E at bike path side. The weld is designated as SEG3019U-003. The welder is identified as 066236. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The welding variables were recorded at, current 285.2 Amps, Voltage 26.5 Volts. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2232-ESAB. Further weld detail mention in attached picture. Further weld detail mention in attached picture.

### 2. NDT:

#### Magnetic Particle Testing (MT):

MT carried out as per the ZPMC submitted Notification No 08315.

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area that has been previously tested and accepted by ZPMC MT technicians. This QA Inspector generated a TL-6028 MT report on this date. The members are identified Grillage weld joint located on BAY-13. The weld designation numbers is as follows: SA7038-001-029, 030, 031, 032, 035, 036.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### Summary of Conversations:

No relevant conversations were reported on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Pillai,Santosh

Quality Assurance Inspector

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**Reviewed By:** Miller,Mark

QA Reviewer